

Emerging Trends in AI/ML and Implications for Networking Research

Panel Discussion

May 19, 2021

Panelists:

Drs. Sujata Banerjee (VmWare), Dr. Somdeb Majumdar (Intel), Dr. Dario Rossi (Huawei), Dr. Dan Pei (Tsinghua University)

Moderator: Dr. Nageen Himayat (Intel)

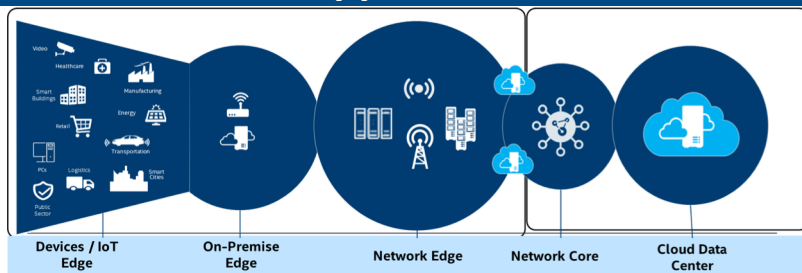
Organizer: Abhimanyu Gosain (NSF PAWR, Northeastern University)



AI/ML and Networking

AI for Networks

Opportunities



New Design paradigm, addressing complexity and automation of networks

Networks for AI

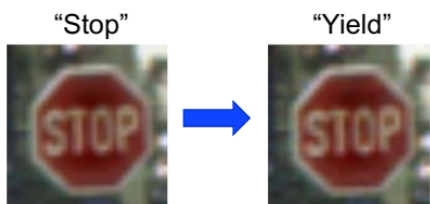
Opportunities



Pervasive, diverse and contextualized AI services as powerful networks and devices distribute intelligence to the Edge.

Challenges

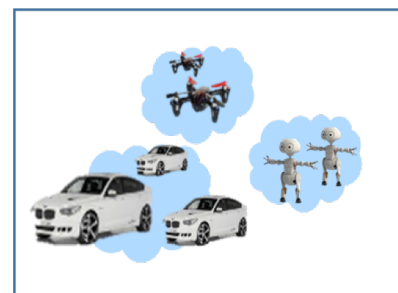
Traffic Sign Classification



- *Dynamic environment?*
- *Security and privacy of data/models?*
- *Robustness?*
- *Bias/Fairness?*

<https://openai.com/blog/adversarial-example-research/>

Challenges



- *Resource constraints?*
- *Self learning vs. Human-in-the-loop?*
- *Security Threats?*
- *Manageability?*

Some Rules

- **Each panelist has 6 minutes to provide prepared remarks:**
 - Dr. Sujata Banerjee (VMware Research, USA)
 - Dr. Somdeb Majumdar (Intel's AI Lab, USA)
 - Dr. Dario Ross (Huawei, France)
 - Prof. Dan Pei (Tsinghua University, China)
- **Q & A (~30 minutes)**
 - Interactive session moderated by Dr. Nageen Himayat.
 - Panelists have an opportunity to ask questions
 - Most of the time spent on questions submitted by the audience (submit via chat/slack channel)
 - Panelists will add comments/answers that build on the discussion and avoid repetition.